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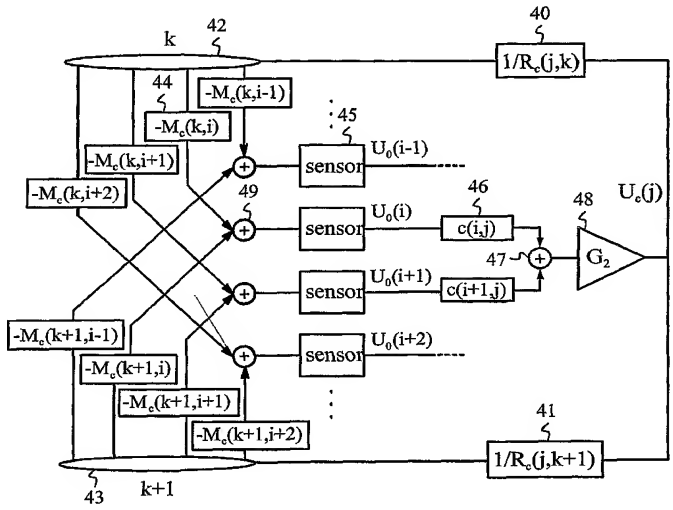
(54) Title: A METHOD FOR INTERFERENCE SUPPRESSION IN A MEASURING DEVICE



(57) Abstract: The present invention describes a method enabling one to shield a device that measures weak biomagnetic signals from strong magnetic interference fields. The measurement sensors are provided with a feedback compensation loop, the difference signal of which is obtained from the measurement sensors themselves. As the actuator of the feedback function, one or more coils are responsible for eliminating, the external interference fields in the region of the sensors. Difference signals can be generated as a linear combination from the signals of two or more sensors. In the control logic, the SSS method can be used to numerically separate the biomagnetic signal being measured from the signals produced by the sources - compensation coils and interference sources - disposed outside the measurement region. The interference suppression can be enhanced by placing the assembly of sensors and the actuators within a magnetically shielding room.

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